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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/287,530 | 04/07/1999 | KENJI MASAKI | 325772009100 | 6413 |

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| EXAMINER |
|---|
| CHOOBIN, BARRY |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2625 | |

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/287,530 | MASAKI, KENJI | |
| | Examiner | Art Unit | |
| | Barry Choobin | 2625 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *24 October 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-15 and 21-24* is/are pending in the application.

4a) Of the above claim(s) *16-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 21-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

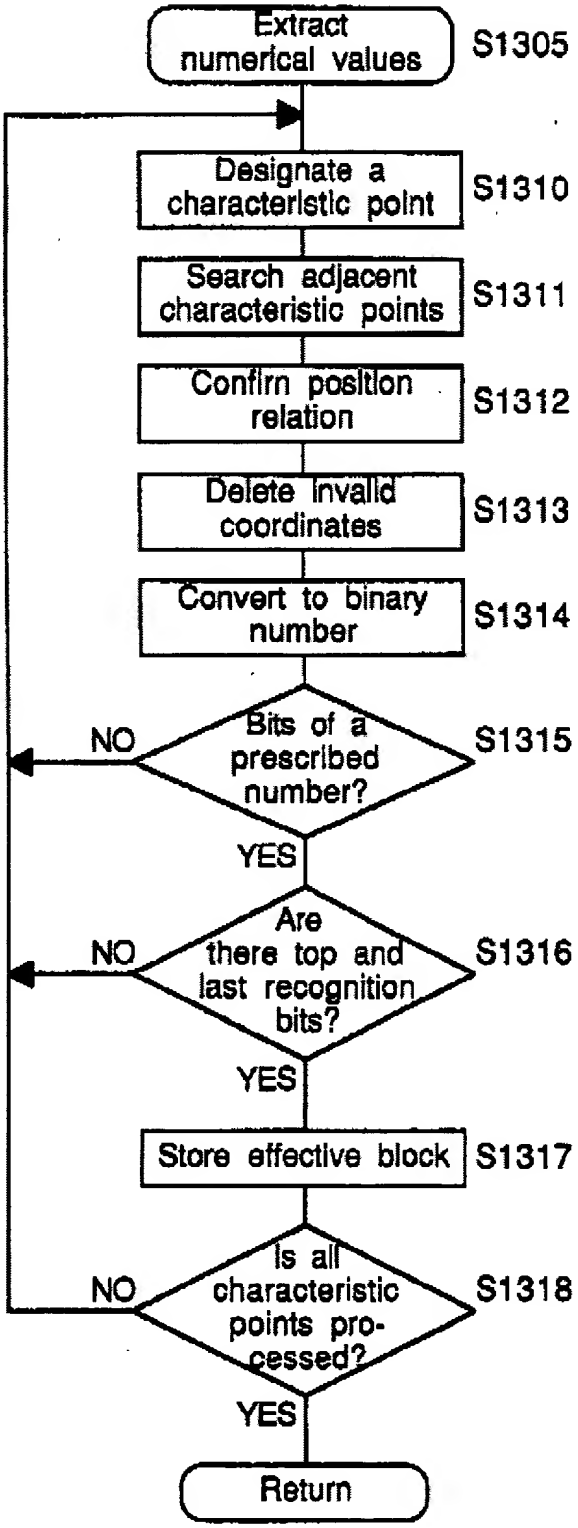
## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed September 12, 2002 and October 30, 2002 have been fully considered but they are not persuasive.

Applicant's argument regarding Yoshida's device does not specify predetermined positions of the processed image for embedding the data is not persuasive. Because Yoshida et al disclose "If the digital data cannot be embedded in such a way because of its long length, it is divided into blocks of a **predetermined** length, and the blocks are embedded. In this case, a block number is added for each block in order to identify a position of a block in the digital data. When blocks are read, the blocks are rearranged in the order of block number. Data of blocks which cannot be read are eliminated" (refer for example to 7, lines 1 – 7). Furthermore Yoshida et al disclose "Block data of a digital data can be embedded in an image at a desired position irrespective of position and direction of density data, and each dot of a digital data is so small not to be recognized with naked eyes" (refer for example to column 7, lines 45 – 48 and Fig 25).

Fig.25


Extract numerical values
S1305
Designate a characteristic point
S1310
Search adjacent characteristic points
S1311
Confirm position relation
S1312
Delete invalid coordinates
S1313
Convert to binary number
S1314
Bits of a prescribed number?
S1315
NO
YES
Are there top and last recognition bits?
S1316
NO
YES
Store effective block
S1317
Is all characteristic points processed?
S1318
NO
YES
Return

First, a characteristic point is searched (step S1310). Then, all the other characteristic points existing within the predetermined range are searched (step S1311). The maximum length of the **predetermined range amounts to the length of a block** (i.e. the bit length times the bit-to-bit distance).

Next, it is confirmed if the coordinates of the characteristic points have the **predetermined position relation** (a linear line in this example) (step S1312), and invalid coordinates and data are deleted (step S1313) (column 15, lines 4 – 12).

***Claim Rejections - 35 USC § 102***

a. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**I. Claims 1 – 15 and 21 - 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida et al (U.S. Patent 5,583,941)**

As to claims 1, 6,11 and 21, Yoshida et al disclose an image processing apparatus including:

a processor, wherein the processor places bits for describing information different from information of image data obtained by image processing on original

image data (column 7, lines 23-31 and Fig.6 wherein FIG. 6 illustrates a situation when a block data is embedded in an image, one level (say "0") of a binarized data is expressed at a density which is the same as those of adjacent pixels, while the other level ("1") is expressed at a density which is different a little from those of adjacent pixels. This data is hereinafter referred to as "density data". Further, in the example shown in FIG. 6, each density data in a block is arranged with a distance of one pixel. A block data consists of total 19 bits (=2+7+8+2), and it can be embedded if there is a line of a length longer than 40 dots, as shown as a central horizontal dot line in FIG. 6. The 40 dots has a length of 1/10 inch (about 2.5 mm) for a printer or an image reader of a resolution of 400 dots per inch, and black lines of such a length may exist in most documents including characters. That is, an additional data of 40 dots can be embedded sufficiently in such a document.),

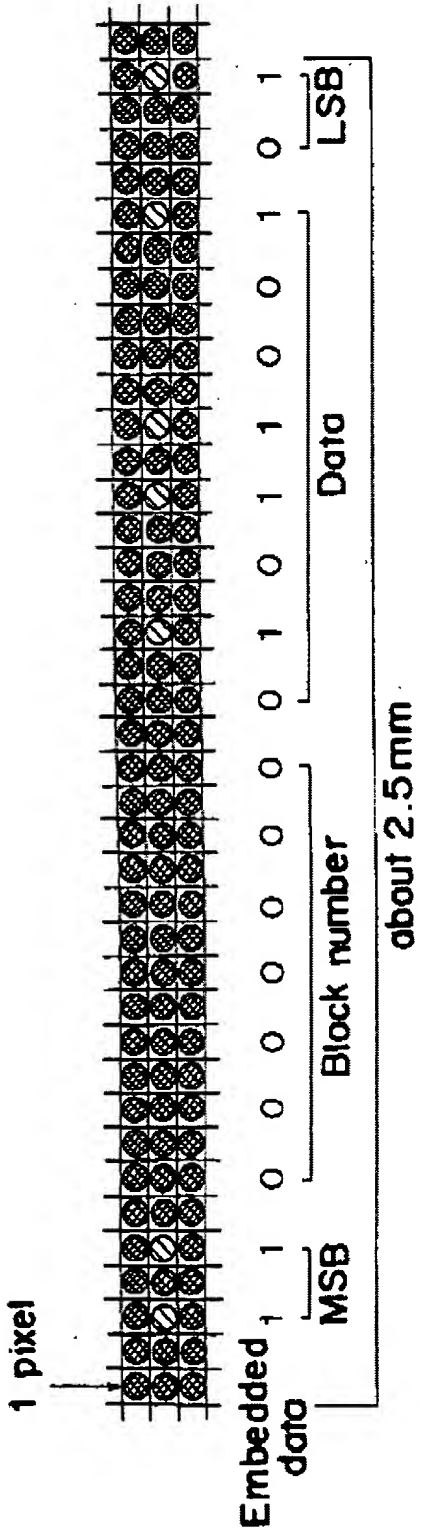

1 pixel
Embedded data
1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0 0 1 0 1
MSB
Block number
Data
LSB
about 2.5mm

Fig. 6

respectively in specific bit positions of pixel data at predetermined positions of said processed image (Fig.6 LSB corresponds to specific bit position), each of the pixel data being expressed by using multiple bits (refer for example to column 7, lines 24 – 32 wherein a block data consists of total 19 bits (=2+7+8+2), and it can be embedded if there is a line of a length longer than 40 dots, as shown as a central horizontal dot line in FIG. 6. The 40 dots has a length of 1/10 inch (about2.5 mm) for a printer or an image reader of a resolution of 400 dots per inch, and black lines of such a length may exist in most documents including characters. That is, an additional data of 40 dots can be embedded sufficiently in such a document.).

As to claims 2, 7, 12, Yoshida et al disclose pixels are dispersed at a plurality of predetermined positions on said image (column 7, lines 53-57 where block data are embedded dispersed in a hard copy).

As to claims 3, 8,13, Yoshida et al disclose said information different from information of said processed image data is information describing the contents of image processing performed (column 10, lines 15-22 where mark registration section 408 marks such as "secret" corresponds to information describing the contents of image) on said original image data to obtain said processed image data.

As to claims 4, 9, 4, Yoshida et al disclose information different from information of said processed image data is information describing time when said image

processing is performed on original image data to obtain said processed image data (column 2, lines 27-36 where registration data determines the repetition time corresponding to "when image processing is performed").

As to claims 5,10, 15, Yoshida et al disclose information different from information for describing said processed image data is information describing time when said bits are placed (column 2, lines 27-36 where registration data determines the repetition time corresponding to "when image processing is performed").

Claims 16 – 20 are cancelled.

Claims 22 – 24 are similarly analyzed and rejected.

***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**CONTANCT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Barry Choobin
January 14, 2003

Jayanti K. Patel
Primary Examiner